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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,859	01/19/2004	Chih-Yuan Tseng	MTKP0115USA	1858

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EXAMINER	
ALUNKAL, THOMAS D	

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/707,859	TSENG ET AL.	
	Examiner	Art Unit	
	Thomas D. Alunkal	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims **1,2,3,6,11,12,15,16,17,21,29, and 30** rejected under 35 U.S.C. 102(e) as being anticipated by Yoon et al (hereafter Yoon) (US 2004/0141433). ~~1,2,3,6,11,12,15,16,17,21,29,30~~

Regarding claim 1, Yoon discloses a method for improving seek operations in an optical disc drive utilizing a header-included lad/groove optical disc (Paragraph 0003), the optical disc drive having a pickup head (Figure 3, Element 100) comprising a laser for generating an optical spot on the optical disc (Paragraph 0034) and at least one optical sensor for generating signals according to light reflected from the optical spot (Paragraph 0034), the method comprising generating a first signal indicating whether a header is currently passing across the optical spot (Figure 3, Element 120), generating a track count signal capable of indicating a change in position of the optical spot from a first track to a second track during a seek operation (Paragraph 0038), and utilizing the first signal as a mask against the track count signal to substantially mask out the effects of passing headers from the track count signal (Paragraph 0039).

Regarding claim 2, Yoon discloses after the first signal has been used as a mask, the method further comprising utilizing the track count signal to count the number of track changes during the week operation (Paragraphs 0038 and 0039).

Regarding claim 3, Yoon discloses after the first signal has been used a mask, the method further comprises utilizing the track count signal to control accelerative and braking forces applied radially to the pickup head during the seek operation (Paragraph 0036).

Regarding claim 6, Yoon discloses initiating a second delay if at least a portion of a passing header is within the optical spot when the optical spot first reaches a target track before reading or writing user data in the target track (Paragraph 0042).

Regarding claim 11, Yoon discloses a method for improving stability in a seek operation in an optical disc drive when utilizing a header-included land/groove optical disc (Paragraph 0003), the optical disc drive comprising a laser for generating an optical spot on the optical disc (Paragraph 0034) and at least one optical sensor for generating signals according to the light reflected from the optical spot (Paragraph 0034), the method comprising initiating a second delay if at least a portion of a passing header is within the optical spot when the optical spot first reaches a target track before reading or writing user data in the target area (Paragraph 0036).

Regarding claim 12, Yoon discloses generating a first signal indication whether a header is currently passing across the optical spot (Figure 3, Element 120), generating a track count signal capable of indicating a change in position of the optical spot from the first track to a second track of the optical disc during the seek operation (Paragraph

0038), and utilizing the first signal as a mask against the track count signal to substantially mask out the effects of passing headers from the track count signal (Paragraph 0039).

Regarding claims 15,16,17,21,29, and 30 of an optical disk drive, all claim limitations are disclosed by the methods of claims 1,2,3,6,11, and 12, respectively.

Claims **8,9,10,13,14,23,24,25,26,27, and 28** are rejected under 35 U.S.C. 102(b) as being anticipated by Hong et al (hereafter Hong) (US 6,314,066).

Regarding claim 8, Hong discloses a method for improving stability in a seek operation in an optical disc drive when utilizing a header-included land/groove optical disc (Column 1, lines 6-10), the method comprising if the number of track changes in seek operation does not exceed a predetermined threshold (Figure 7, Element 301. Here, the seek operation equals the threshold), initiating a first delay to allow a next header to be read before the first track change in the seek operation is initiated (Column 6, lines 1-8).

Regarding claim 9, Hong discloses the first delay further allows a tracking error signal generated by the optical disc drive to substantially re-stabilize after the next header has been read before the first track change in the seek operation is initiated (This is an inherent property of the first delay and read next header limitation disclosed in claim 9).

Regarding claim 10, Hong discloses the predetermined threshold is equal to or less than the greatest number of tracks jumped in a seek operation that can be initiated

and concluded between adjacent headers (Column 8, lines 25-35. The greatest umber of tracks between adjacent headers is one).

Regarding claim 13, Hong discloses a method for improving stability in a seek operation in an optical disc drive when utilizing a header-included land/groove optical disc (Column 1, lines 6-10), the optical disc drive comprising a laser for generating an optical spot on the optical disc (Figure 6, Element 102), the method comprising, if the optical spot is with a predetermined dander zone preceding a G/L switch line, initiating a third delay to allow the G/L switch line to be read by the optical disc drive before the first track change in the seek operation is initiated (Column 6, lines 1-8).

Regarding claim 14, Hong discloses the danger zone comprises at least one physical sector of the optical disc immediately preceding the G/L switch line (Column 6, lines 1-8 and Column 8, lines 25-32).

Regarding claims 23 and 24, of an optical disk drive, all claim limitations are disclosed by the methods of claims 13 and 14, respectively.

Regarding claims 25,26,27, and 28 of an optical disk drive, all claim limitations are closed by the methods of claims 8, 9, and 10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims **7,4,5,18,19,20,22, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoon (US 2004/0141433) as applied to claims 1,2,3,6,11, and 12 above, and further in view of Hong (US 6,314,066).

Regarding claim 7, Yoon discloses all limitations of parent claims above. Yoon does not disclose if the optical spot is within a predetermined danger zone preceding a G/L switch line, the method further comprises initiating a third delay to allow the G/L switch line to be read before the first track change in the seek operation is initiated. However, Hong discloses a DVD-RAM disc that initiates a delay allow the G/L switch line to be read before the first track change in seek operation is initiated (Column 6, lines 1-8). Hong discloses that by initiating a delay to allow for the G/L switch line to be read before the first track change in seek operation is initiated can lead to wrongly tracking on either a land or groove track, which may lead to a defocus or detrack (Column 4, lines 1-8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made for the method of Yoon on a DVD-RAM disc to incorporate initiating a time delay to allow for the G/L switch line to be read before the first track change in seek operation is initiated. The motivation being to reduce both tracking and track counting errors, which can result from defocusing and detracking.

Regarding claim 4, Hong discloses if the number of track changes in the seek operation does not exceed a predetermined threshold (Figure 7, Element 301. Here, the seek operation equals the threshold), the method further comprises initiating a first

delay to allow a next header to be read before initiating the first track change in the week operation (Column 6, lines 1-8).

Regarding claim 5, Hong discloses the first delay further allows a tracking error signal generated by the optical disc drive to substantially re-stabilize after the next header has been read before the first track change in the seek operation is initiated (This is an inherent property of the first delay and read next header limitation disclosed in claim 4).

Regarding claims 18 and 19 of an optical disc drive, all claim limitations are disclosed by the method of claim 4

Regarding claim 20 of an optical disc drive, all claim limitations are disclosed by the method of claim 5.

Regarding claims 22 and 23 of an optical disc drive, all claim limitations are disclosed by the method of claim 7.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Alunkal whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thomas Alunkal
Patent Examiner

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER